

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A rotary atomizing head type coating machine,
~~including~~ comprising:

a rotary atomizing head ~~for spraying~~ to spray supplied paint,
an air motor coupled with said rotary atomizing head and rotated by a supply of air,
a speed sensor ~~adapted~~ to detect rotational speed of said air motor,
an air source ~~for supplying~~ to supply an air to said air motor,
an electropneumatic converter ~~adapted~~ to adjust an air pressure supplied from said air
source according to an electrical quantity, and
a controller ~~adapted~~ configured to control an electrical quantity to be output to said
electropneumatic converter ~~in such a way as~~ to diminish a differential between said rotational
speed detected by said speed sensor and a given target rotational ~~speed, for~~ speed to provide a
feedback control of said air pressure,

~~characterized in that:~~ wherein said controller is provided with a steady value
computing ~~means adapted~~ device configured to compute a necessary value of electrical
quantity as a steady value against given settings in arbitrary target rotational speed and paint
discharge rate ~~for driving~~ to drive said air motor steadily in ~~the~~ a vicinity of said given target
rotational speed and at said paint discharge rate;

when either said target rotational speed or said paint discharge rate is to be changed,
said controller ~~being adapted~~ is configured to compute a new steady value on ~~the~~ a basis of
~~said~~ a changed target rotational speed and paint discharge rate by ~~the~~ a use of said steady
value computing ~~means,~~ device, and to output to said electropneumatic converter an electrical
quantity on ~~the~~ a basis of said changed target rotational speed and paint discharge rate by ~~the~~
use of said steady value computing device ~~means~~;

said controller further being adapted to output to said electropneumatic converter an electrical quantity for an air pressure higher than that of said new steady value when said target rotational speed is to be changed to a higher speed, ~~for rotating~~ to rotate said air motor at a speed higher than a newly set target rotational speed, and

an electrical quantity for an air pressure lower than that of said new steady value when said target rotational speed is to be changed to a lower speed, ~~for rotating~~ to rotate said air motor at a speed lower than a newly set target rotational speed.

Claim 2 (Currently Amended): [[A]] The rotary atomizing head type coating machine as defined in claim 1, wherein said steady value computation ~~means~~ device is ~~adapted~~ configured to compute a steady value of said electrical quantity on ~~the~~ a basis of a coefficient of viscosity and a specific gravity of paint in addition to said target rotational speed and paint discharge rate.

Claim 3 (Cancelled).

Claim 4 (Currently Amended): [[A]] The rotary atomizing head type coating machine as defined in claim 1, wherein said controller ~~is adapted~~ configured to go to feedback control on ~~the~~ a basis of said differential in rotational speed, after said detected rotational speed has reached said target rotational speed.

Claim 5 (Currently Amended) [[A]] The rotary atomizing head type coating machine as defined in claim 1, wherein at the time of suspending paint supply, said controller is ~~adapted~~ configured to preset a target rotational speed at the same value as a target rotational speed to be set upon restarting paint supply.

Claim 6 (Currently Amended): [[A]] The rotary atomizing head type coating machine as defined in claim 1, wherein said controller is ~~adapted~~ configured to increase said paint discharge rate as well as said target rotational speed at ~~the~~ a time of coating a broad surface area of a work piece, and to decrease said paint discharge rate as well as said target rotational speed at ~~the~~ a time of coating a narrow surface area of a work piece.